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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Noriyoshi Kurotsu

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EXAMINER

RODRIGUEZ, LENNIN R

ART UNIT

PAPER NUMBER

2625

MAIL DATE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/774,473	Applicant(s) KUROTSU ET AL.	
	Examiner LENNIN R. RODRIGUEZ	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-16 and 18-21 is/are rejected.
- 7) ☒ Claim(s) 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 August 2008 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see page 11, line 22 to page 12, line 3, filed on 8/12/2008, with respect to the rejection(s) of claim(s) 1-22 under 35 U.S.C. 102(b) and 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Nakatsuma et al. (US 6,115,132) and Bain et al. (US 5,287,434).
2. Drawing objections have been withdrawn in view of the submitted amendment.
3. Rejection made under 35 U.S.C. 112, second paragraph has been withdrawn in view of the submitted amendment.
4. Rejection under 35 U.S.C. 101 has been withdrawn in view of the submitted amendment.
5. Double patenting rejection has been withdrawn in view of the submitted amendment.

Continued Examination Under 37 CFR 1.114

6. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

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has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/12/2008 has been entered.

Drawings

7. The drawings are objected to because

(1) Fig. 5, in the options after step S1507, “0 **BITE**” should be -- 0 **BYTE** – and “LESS THAN THRESHOLD BUT 1 **BITE** OR MORE” should be -- LESS THAN THRESHOLD BUT 1 **BYTE** OR MORE.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

8. Claims 12-21 are objected to because of the following informalities:

(1) claim 12, line 2, “the second spool” should be – the second spool **file** --.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

9. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

10. Claims 1-10 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. A “computer executable print control program” is being recited; however a “computer executable print control program” as presented in the claims appears to be directed to software per se. This subject matter is not limited to that which falls within a statutory category of invention because it is limited to a process, machine, manufacture, or a composition of matter. Software is a function descriptive material and a function descriptive material is non-statutory subject matter.

Claim Rejections - 35 USC § 103

11. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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12. Claims 1-3, 8-10, 12-14 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakatsuma et al. (US 6,115,132) in view of Bain et al. (US 5,287,434).

(1) regarding claims 1, 11 and 12:

Nakatsuma '132 discloses an information processing apparatus (102 in Fig. 1) for transmitting print data to an image-forming device which records an image (column 5, lines 28-31), the apparatus comprising:

a spooling unit (801 in Fig. 9) for further re-spooling, as a second spool file, print data spooled by an operating system (column 5, lines 65-66) as a first spool file and then once de-spooled (column 12, lines 1-28, where data is being spooled by the Windows spooler then in column 13, lines 52-58 the data already spooled in a first spool file and stored in a virtual spooler is spooled); and

a transmission unit (202 in Fig. 2) for reading out and transmitting to said image-forming device said print data re-spooled as the second spool, wherein said transmission unit transmits to said image-forming device a portion of said print data which has already re-spooled as the second spool file while retaining the other portion (column 14, lines 1-5, where after performing the spooling the data is send to a network printer representing the destination or alternate device, and where the data being sent is being interpreted as a portion of data).

Nakatsuma '132 discloses all the subject matter as described above except transmitting to said image-forming device a portion of said print data which has already

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re-spooled as the second spool file in the case that re-spooling by said spooling unit is stalled.

However, Bain '434 teaches transmitting to said image-forming device a portion of said print data which has already re-spooled as the second spool file in the case that re-spooling by said spooling unit is stalled (column 17, lines 37-48, where the unit is suspended and then back up again).

Having a system of Nakatsuma '132 reference and then given the well-established teaching of Bain '434 reference, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the information processing apparatus of Nakatsuma '132 to include transmitting to said image-forming device a portion of said print data which has already re-spooled as the second spool file in the case that re-spooling by said spooling unit is stalled as taught by Bain '434 because it will maximize the efficiency of the spooling operation by preventing retransmission of data after being initially spooled (column 2, lines 61-67), thus increasing the efficiency of the system.

(2) regarding claims 2 and 13:

Nakatsuma '132 further discloses an attaching unit for attaching to the print data re-spooled by said spooling unit a first job identifier (column 13, lines 20-43) and a second job identifier different from the first job identifier (column 16, lines 50-58 and column 24, lines 36-39, where an ID different from the first one its being created); and

a managing unit (710 in Fig. 7) for managing jobs based on the second job identifier (columns 16-17, lines 58-67 and 1-7 respectively).

(3) regarding claims 3 and 14:

Nakatsuma '132 further discloses wherein the first job identifier is an identifier issued via the operating system (column 6, lines 59-67 and column 13, lines 20-23, where the job ID it's being obtained from the virtual print server service which the OS is controlling).

(4) regarding claims 8 and 19:

Nakatsuma '132 further discloses a retransmission unit (client PC acts as a retransmission unit, 102 in Fig. 1) for retransmitting to said image-forming device said print data re-spooled as the second spool file by said spooling unit before the re-spooling by said spooling unit is finished if transmission to said image-forming device of the print data is stalled (column 29, lines 24-36 and column 30, lines 26-29, where if an error occurs is being interpreted as when the data is stalled).

(5) regarding claims 9 and 20:

Nakatsuma '132 further discloses a display unit (207 in Fig. 2) for displaying a status of said print data re-spooled as the second spool file by said spooling unit (column 6, lines 37-39); and

if print data for which transmission to said image-forming device is interrupted due to error is displayed by said display unit, an accepting unit for accepting an instruction to retransmit such print data (column 30, lines 47-55).

(6) regarding claims 10 and 21:

Nakatsuma '132 further discloses wherein said retransmission unit further comprises an identifier for identifying print data for retransmission using the second job identifier (column 29, lines 33-36).

13. Claims 4-5 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakatsuma et al. (US 6,115,132) and Bain et al. (US 5,287,434) in view of Kujirai et al. (US 6,594,033).

(1) regarding claims 4 and 15:

Nakatsuma '132 and Bain '434 disclose all the subject matter as described above except wherein said transmission unit comprises a segmented transmission unit for dividing and transmitting print data in the second spool file to said image-forming device in segments.

However, Kujirai '033 teaches wherein said transmission unit comprises a segmented transmission unit for dividing and transmitting print data in the second spool file to said image-forming device in segments (column 4, lines 53-61, where the print data is divided into file units).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a transmission unit comprises a segmented transmission unit for dividing and transmitting print data in the second spool file to said image-forming device in segments as taught by Kujirai '033 in the system of Nakatsuma '132 and Bain '434. With this the system can perform more efficiently since it does not consume many resources of transmitting large amounts of data at a certain time.

(2) regarding claims 5 and 16:

Nakatsuma '132 and Bain '434 disclose all the subject matter as described above except said transmission unit comprises a write finish detection unit for detecting an end of spooling of a spool file by said spooling unit; and

said segmented transmission unit transmits the print data in the second spool file to said image-forming device in segments if a spool file write finish is not detected by said write finish detection unit.

However, Kujirai '033 teaches said transmission unit comprises a write finish detection unit for detecting an end of spooling of a spool file by said spooling unit (column 9, lines 58-64); and

said segmented transmission unit transmits the print data in the second spool file to said image-forming device in segments if a spool file write finish is not detected by said write finish detection unit (column 9, lines 61-67, where if it is not detected the job end).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a transmission unit comprises a write finish detection unit for detecting an end of spooling of a spool file by said spooling unit and said segmented transmission unit transmits the print data in the second spool file to said image-forming device in segments if a spool file write finish is not detected by said write finish detection unit as taught by Kujirai '033 in the system of Nakatsuma '132 and Bain '434. With this the system can perform more efficiently since it does not consume many resources of transmitting large amounts of data at a certain time.

Allowable Subject Matter

14. Claim 17 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

15. The following is a statement of reasons for the indication of allowable subject matter:

(1) claim 17 includes the limitation “wherein said segmented transmission step comprises:

a data amount detection step of detecting an amount of data not yet transmitted to said image-forming device in the second spool file;

a data determination step of determining whether or not the amount of data detected in said data amount detection step is below a predetermined threshold;

a data transmission step of transmitting to said image-forming device the print data in the second spool file in segments if it is determined in said data determination step that the amount of data is below the threshold, and

a second data transmission step of transmitting to said image-forming device the print data in the second spool file if it is determined in said data determination step that the amount of data is above the threshold.” The prior art of record Nakatsuma ‘132 and Bain ‘434 either singularly or in combination do not disclose the subject matter presented in these claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LENNIN R. RODRIGUEZ whose telephone number is (571)270-1678. The examiner can normally be reached on Monday - Thursday 7:30am - 6:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Poon can be reached on (571) 272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/King Y. Poon/
Supervisory Patent Examiner, Art Unit 2625

/Lennin R Rodriguez/
Examiner, Art Unit 2625